

## National Park Service – Intermountain Region

### Survey of Monitoring Needs for Adaptive Management

The purpose of this survey is to learn from you—park superintendents and resource managers—how IMR I&M networks can best provide useful and understandable information for park management. In order to do that, we want to know what information you need and how you will use it to make decisions. The collective results will be presented at the IMR Workshop “Integration of Monitoring Results into Park Management” in Tucson, AZ on December 6-8, 2005, and summarized in a report that will be available by December 20, 2005.

It is important to us to provide you with the highest quality information possible. Please take a few minutes to complete this survey, and return it (via email, fax, or mail) by **November 18** to: Andy Hubbard, Inventory and Monitoring Program Coordinator, Sonoran Desert Network, 7660 E. Broadway Blvd., #303, Tucson, AZ 85710, [andy\\_hubbard@nps.gov](mailto:andy_hubbard@nps.gov), phone (520-546-1607x1), fax (520-546-7601). If you have any questions, please call 520-546-1607x1 or contact your network coordinator.

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1. Before a decision becomes necessary, a resource management issue needs to be identified. In your experience, how are issues identified? (*circle the most appropriate answer for each*)

a. My supervisor alerts me to an issue

ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
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b. I recognize an issue or a staff member alerts me to an issue

ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
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c. Issues are described in resource management plans

ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
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d. Issues are identified at the regional level

ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
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e. Issues are identified at the national level

ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
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f. A park user makes a complaint

ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
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g. An environmental group makes a complaint

ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
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h. A stakeholder group makes a complaint

ALWAYS	OFTEN	SOMETIMES	RARELY	NEVER
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i. Research scientists working in my park alert me to an issue  
ALWAYS      OFTEN      SOMETIMES      RARELY      NEVER

j. An issue is identified in the news media (e.g., newspaper, TV, interview)  
ALWAYS      OFTEN      SOMETIMES      RARELY      NEVER

2. I find that this group has the highest expectation for some immediate action to be taken or decision to be made once an issue is identified. (*check one*)

- ☐ supervisor
- ☐ staff
- ☐ NPS Intermountain Regional Office
- ☐ park user/stakeholder group
- ☐ environmental group
- ☐ NPS Washington Office
- ☐ the media
- ☐ other, please specify: \_\_\_\_\_

3. **Case study:** An environmental group has ranked your park as one of the most threatened due to impacts from non-native invasive species. What are your next steps? (*order the relevant steps sequentially starting with 1*)

- ☐ ask supervisor for input
- ☐ go to experts in non-native invasive species
- ☐ solicit technical assistance from the Intermountain Regional Office
- ☐ make a decision
- ☐ hold a public meeting
- ☐ issue a press release explaining the issue
- ☐ refer to park data on invasive species
- ☐ confer with a team of in-park specialists
- ☐ seek the opinion of the Network Technical Committee
- ☐ confer with neighboring land owners to get a regional perspective
- ☐ other, please specify: \_\_\_\_\_
- ☐ other, please specify: \_\_\_\_\_

4. What technical input is most important in decision making? (*indicate the top three with 1 being most important*)

- ☐ inventory data
- ☐ data from recent studies, not necessarily from the park
- ☐ data from long-term studies, not necessarily from the park
- ☐ monitoring data
- ☐ reports from studies conducted in the park

- \_\_\_\_\_ reports from other places or generally on the topic
- \_\_\_\_\_ scientific literature
- \_\_\_\_\_ expert opinion
- \_\_\_\_\_ other, please specify: \_\_\_\_\_
- \_\_\_\_\_ other, please specify: \_\_\_\_\_

5. In general, what sources of technical information have you found to be the most relevant?  
(rank in order of priority with 1 being most relevant)

- \_\_\_\_\_ universities
- \_\_\_\_\_ U.S. Geological Survey, Biological Resources Division
- \_\_\_\_\_ NPS Intermountain Regional Office
- \_\_\_\_\_ environmental nonprofits (for example, The Nature Conservancy)
- \_\_\_\_\_ Network Technical Committee
- \_\_\_\_\_ stakeholder groups or other special interest groups
- \_\_\_\_\_ research institutions (other than universities)
- \_\_\_\_\_ internal park data
- \_\_\_\_\_ other, please specify: \_\_\_\_\_

6 & 7. **Case Study:** In an annual report of monitoring results for your parks, the network staff documents a recent sharp increase in the abundance of exotic plant species X. The report and presentation present detailed status and trend data from a technical (scientific) perspective.

6. What additional information would you expect to receive from the network staff in the report?  
(check all that apply)

- \_\_\_\_\_ comprehensive non-technical explanations of the statistical and ecological issues
- \_\_\_\_\_ results placed in the broader context of similar land units with species X.
- \_\_\_\_\_ results placed in the context of known (or hypothesized) ecological thresholds or trigger points for species X encroachment in your ecoregion.
- \_\_\_\_\_ results placed in the context of desired future conditions (if identified) for your park
- \_\_\_\_\_ network recommendations as to whether management action should be considered
- \_\_\_\_\_ network recommendations as to specific management practices for controlling species X.
- \_\_\_\_\_ briefing statements or Powerpoint presentations that will help you communicate the issue to others.
- \_\_\_\_\_ other, please specify: \_\_\_\_\_
- \_\_\_\_\_ other, please specify: \_\_\_\_\_

7. What information would be the most relevant for deciding if and what kind of management action is warranted for species X? (rank in order of priority with 1 being most relevant; use N/A if information does not exist)

- \_\_\_\_\_ general management plan
- \_\_\_\_\_ resource management plan

- ☐ enabling legislation
- ☐ NPS policies on invasive species
- ☐ expert opinion (yours or others within the park)
- ☐ expert opinion (external to the park)
- ☐ reports on management of species X from similar neighboring lands
- ☐ descriptions of desired future conditions and ecological thresholds for your park
- ☐ more specific planning documents (e.g., vegetation management plan)

8. What kinds of information do you regularly use in decision making? (*check all that apply*)

- ☐ raw data
- ☐ reports from studies conducted by universities
- ☐ scientific journals and other literature
- ☐ park management documents (such as GMP and RMP)
- ☐ executive summaries
- ☐ presentations and briefings
- ☐ annual status reports for resource x
- ☐ ten-year trend reports for resource x
- ☐ resource education and interpretation materials
- ☐ other, please specify: \_\_\_\_\_
- ☐ other, please specify: \_\_\_\_\_

9. What kinds of information would you like to use in decision making? (*check all that apply*)

- ☐ raw data
- ☐ reports from studies conducted by universities
- ☐ scientific journal articles and other literature
- ☐ park management documents (such as GMP and RMP)
- ☐ executive summaries
- ☐ presentations and briefings
- ☐ annual status reports for resource x
- ☐ ten-year trend reports for resource x
- ☐ other, please specify: \_\_\_\_\_
- ☐ other, please specify: \_\_\_\_\_

10. What kinds of information would you like to get from your Inventory and Monitoring Network? (*check all that apply*)

- ☐ raw data
- ☐ reports from studies conducted by universities
- ☐ scientific journals and other literature
- ☐ technical reports
- ☐ executive summaries
- ☐ resource education and interpretation materials
- ☐ status reports

- \_\_\_\_ synthesis reports that place I&M results in a broader context
- \_\_\_\_ specific recommendations for management practices
- \_\_\_\_ presentations and briefings
- \_\_\_\_ other, please specify: \_\_\_\_\_
- \_\_\_\_ other, please specify: \_\_\_\_\_

11. How would you like to receive information from your Inventory and Monitoring Network?  
(rank in order of preference with 1 being most preferred)

- \_\_\_\_ raw data in database form
- \_\_\_\_ full technical report with references for other supporting information
- \_\_\_\_ executive summaries and findings
- \_\_\_\_ fact sheets
- \_\_\_\_ presentations or briefings
- \_\_\_\_ other, please specify: \_\_\_\_\_

12. When seeking expertise on a natural resource issue, which disciplines do you utilize most frequently? (rank in order of frequency with 1 being most frequent)

- \_\_\_\_ hydrology and water resources
- \_\_\_\_ soils and geology
- \_\_\_\_ wildlife biology
- \_\_\_\_ botany and plant ecology
- \_\_\_\_ threatened, and endangered species (T&Es)
- \_\_\_\_ air quality and climatology
- \_\_\_\_ GIS and data management
- \_\_\_\_ fire ecology and management
- \_\_\_\_ other, please specify: \_\_\_\_\_
- \_\_\_\_ other, please specify: \_\_\_\_\_

13. What do you see as the primary obstacle to optimum decision making?

14. Is there anything else you would like to tell us? (use back of page if necessary)

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Tell us about yourself. Your answers will remain anonymous, but for analysis purposes, we would like to know a little about you.

15. How informed are you about your Inventory and Monitoring Network? (*circle the most appropriate response*)

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|----------------------|--|
| VERY<br>INFORMED     | (I am involved in the development of the network)                      |
| SOMEWHAT<br>INFORMED | (I am familiar with the scope and approach, but not directly involved) |
| SLIGHTLY<br>INFORMED | (I have heard of it, but am not familiar with all aspects)             |
| NOT<br>INFORMED      | (I have little or no information or understanding of the network)      |

16. I am a: (*check one*)

- ☐ Superintendent  
☐ Resource Manager

17. I have been an employee of the National Park Service for: (*check one*)

- ☐ 20 years or more  
☐ 11 - 19 years  
☐ 5 - 10 years  
☐ 1 - 4 years  
☐ less than 1 year

18. I have 5 or more years of experience or education in the following areas: (*check all that apply*)

- ☐ botany/plant ecology  
☐ wildlife and/or fisheries biology  
☐ physical sciences  
☐ cultural resources  
☐ visitor services  
☐ interpretation, environmental education  
☐ visitor and resource protection  
☐ park administration  
☐ maintenance  
☐ other, please specify: \_\_\_\_\_